

## **EXHIBIT 13**

NH007/UA809 Wingtip Collision

## Transcripts - Ramp Tower and Ground Control

Time indicated is NH007 QAR Time, converted to the local time by subtracting seven hours from the recorded UIC. Our analysis indicates that there is 95 second (1'35") difference between the QAR time and the Ramp Tower time that was stamped to the voice communication record. The QAR time is GPS-based and presumed accurate.

\*: Unintelligible Words

?: Source Unidentified

Black letters: NH007 Communications

Blue letters: UA809 Communication

█ : NH007 QAR Radio Key Record

QAR Time	Ramp Comm. Time	Source	Content
	11:46:10-14	NH007	Ramp TWR, All Nippon 007 Gate 95 Request push.
	11:46:15	Ramp Tower	Air Nippon 007, Good afternoon and you are cleared to push.
	11:46:19-21	NH007	Good afternoon, cleared to push.
11:48:43	11:47:08	Ramp Tower	Air Nippon 007, Ramp.
11:48:46-47	11:47:11-12	NH007	Go ahead, All Nippon 007.
11:48:48	11:47:13	Ramp Tower	Would you please advise ah push crew there will be a triple seven inbound gate 99.
11:48:54-56	11:47:19-21	NH007	All Nippon 007 understand. Thank you.
11:48:57	11:47:22	Ramp Tower	Thank you.

11:50:16-17	11:48:41-42	NH007	Ramp tower. All Nippon 007.
11:50:20	11:48:45	Ramp Tower	Air Nippon 007. Go ahead.
11:50:23-24	11:48:47-59	NH007	Confirm. I give way approaching traffic 1990 gate 99 or may I proceed to engine start point?
11:50:35	11:49:00	Ramp Tower	You can continue towing, I just want to let you know there will be ah... inbound deliverer aircraft at gate 99. Just no...no conflict.
11:50:42-44	11:49:07-09	NH007	Thank you. Continue towing.
11:50:45	11:49:10	Ramp Tower	Very much. Flight 90. Ramp.

11:55:23-24	11:53:47-50	NH/UA	(Garbled - Beat - Dual Transmission) Ramp, 809 ready to push back gate 102 NOTE: NH007 voice is not recognizable in the Gate Tower communication audio record file.
11:55:28 - 11:55:32	11:53:51-57	Ramp Tower	Sorry, I've got two people calling. Who else ah Air Nippon 007, I heard you. You are cleared to spot 10 please. Have a good day.
11:55:34 - 11:55:36	11:53:59 - 11:54:01	NH007	Cleared to spot 10. Have a good day, All Nippon 007.
11:55:37 -	11:54:02	Ramp Tower	Who else is calling? Is that flight 809?
11:55:39 -	11:54:04	UA809	809. Ready to push at 102.
11:55:41 -	11:54:06	Ramp Tower	809, good morning. Please standby. I'll call you back in about one minute.
11:55:45	11:54:10	?	** (Presumably a UA809 response)

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QAR Time	Ramp Comm. Time	Source	Content
11:56:05	11:54:30	Ramp Tower:	Much and flight 809, Ramp.
11:56:06 -	11:54:31	UA809:	Go ahead.
11:56:07 -	11:54:32	Ramp Tower:	Much for your hold. You are cleared to push
11:56:08			
11:56:10 -	11:54:35	UA809:	Cleared to push, 809.
11:56:29	11:54:54 -	NH007	Ground, All Nippon 007 Approaching Spot 10
11:56:32	11:54:57		Request Taxi.
11:56:33	11:54:58	Ground Control	Ground, 007'n San Francisco Runway Two Eight Left, Taxiway Alpha, Foxtrot, hold short Runway One Left.
11:56:41	11:55:06 -	NH007	Runway Two Eight Left, Alpha, Foxtrot, hold short
11:56:45	11:55:10		One Left, All Nippon 007.